

### Gallatin City-County Health Department

### **GALLATIN COUNTY**

# Leading Health Indicators and Priority Public Health Issues









Prepared for the Board of Health January 2009

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### **Overview**

The content of this document provides a snapshot of the health of Gallatin County citizens. The intent of this document is to provide a picture of the ongoing and emerging health concerns facing our communities, and in doing so, to help identify strategic priorities for community health programs.

Many sources of data contribute to our understanding of health status and issues specifically facing Gallatin County. These include several community health profiles, community assessments, local service program information and state-collected statistics.

The final portion of this document summarizes the findings from an assessment of the local public health system. That is...recognizing public health from a community perspective acknowledges that if we are to effectively address many of the current and emerging health issues facing our community, it will take a sustained collaborative effort of partnerships. Such efforts will rely on the sharing of information and resources as well as ongoing strategic communications with decision-makers, media and the public.

As such, we would like to acknowledge the contributions of public health partners in past and current initiatives. Many of these partners have contributed to the information presented in this report and are listed as sources of data towards the end of this document.

## PEOPLE OF GALLATIN COUNTY

The Montana Census & Economic Information Center (CEIC) provides periodic estimates and projections on area populations. Most recently released, 2007 population estimates suggest a population total likely over 87,000 people currently living in Gallatin County.

With an estimated nearly 29% increase in population since the 2000 census, Gallatin County far out-paces any other county in Montana as the number one fastest growing county (Figure 1). The percent increase in population growth, since 2000, in Gallatin County is over four times that of Montana and the United States (Montana CEIC 2007 Population Estimates)!

### **Key Demographic Characteristics**

- In 2000, the median age in Gallatin County was 30.7; In 2007 median age increased to 32.0. 2007 estimates indicate that nearly 9% of the population was age 65 or older (Table 1). Expected national trends point to a dramatic increase of this age group over the next two decades.
- In 2007, an estimated 47% of women were of child-bearing age (15-44). (Table 1)
- Over 96% of Gallatin County residents are white. Minority populations have shown slight increases. (Table 2).
- 42% of Gallatin County residents live outside the limits of incorporated communities (MT Census & Economic Information Center-CEIC).
- 22% of Gallatin County residents have incomes less than 150% of the federal poverty level (2000 U.S. Census).

Figure 1: The population of Gallatin County increased dramatically from 2000 to 2007; this increase is expected to continue at its current pace. CEIC—MT Department of Commerce

### Gallatin County Total Population Estimates, 2000-2007

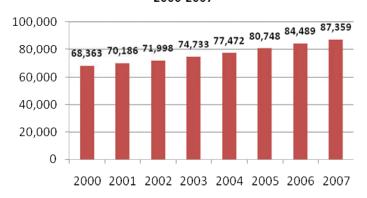


Table 1: Percent (and number) of Gallatin County in selected age groups, by sex, 2007 estimates. CEIC—MT Department of Commerce

AGE (years)	Percent	Number	MEN	WOMEN
	%	#	%	%
All Ages	100%	87,359	45,512	41,847
0-14	18%	(15,914)	18%	19%
15-44	49%	(42,710)	51%	47%
45-64	24%	(21,293)	24%	25%
65+	9%	(7,442)	8%	10%

Table 2: 2007 estimates of ethnicity in Gallatin County. CEIC—MT Department of Commerce

Ethnicity	Percent	Number
White	96.3%	84,098
Hispanic	2.5%	2,192
Black	0.4%	384
American Indian/ Alaska Native	1.0%	907
Asian	1.1%	979

### **CAUSES OF DEATH**

Residents of Gallatin County are not only living longer than ever, but according to a recent study, are also living longer compared to most places in Montana and the United States (Murray, C. et.al.)! Although mortality rates have declined over the past decades, chronic diseases remain the leading cause of death in Gallatin County and Montana.

### **Leading Causes of Death**

- Cancer and Heart Disease remain the leading causes of death in Gallatin County (Table 1).
- The 2007 suicide rate is double the rate from 2004; and, Accident rates are up by over 25% (Table 1).
- Motor vehicle accidents make up the vast majority of accidental deaths regardless of age (CDC WISQARS)
- The average number of traffic fatalities per year in Gallatin County has significantly increased over the last five years (Figure 2).

### Percentages for leading causes of death in Montana, by age group, 2007:

- For infants (under 1 year old): Congenital anomalies (32.9%); Perinatal-originated conditions (26.3%); SIDS (14.5%)
- For children (age 1 to 14): Accidents (41.6%); Congenital anomalies (11.1%); Suicide (8.6%); Cancer (8.6%)
- For adolescents (age 15 to 24): Accidents (62.1%); Suicide (13.8%); Homicide (5.5%); Cancer (5.5%)
- For young adults (age 25 to 44): Accidents (38.3%); Suicide (14.7%); Cancer (8.1%); Heart Disease (8.1%)
- For adults (age 45 to 64): Cancer (29.1%); Heart disease (19.6%); Accidents (10.6%)
- For elderly (age 65 and older): Heart disease (23.8%); Cancer (22.0%); Chronic Lower Respiratory Disease (8.5%);

Source: MT Vital Statistics Office

Table 1: Leading Causes of Death in Gallatin County

<b>Leading Causes</b>	of	Death,1994	and	2007
			F	ata nar

	100,000		
Cause of Death	1994	2007	
Heart Disease	103.8	114.5	
Cancer	103.8	93.9	
Accidents	29.4	42.4	
Cerebrovascular Disease	41.5	27.5	
Suicide	10.4	21.7	
Chronic Lower Resp. Disease	27.7	20.6	
Diabetes	19	11.4	
Pneumonia and Influenza	25.9	11.4	
Alzheimer's Disease	5.2	10.3	
Chronic Liver Disease/Cirrhosis	8.6	1.1	

<sup>\*</sup>death rates per 100,000 estimated population

Figure 1: 5-year fetal and infant death rates in Gallatin County from 1980 to 2004 MT Vital Statistical Reports

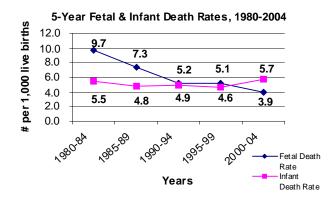
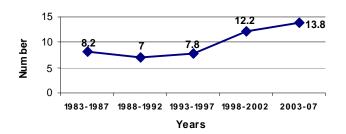


Figure 2: 5-year averages of traffic fatalities in Gallatin County from 1983 to 2007 MT Department of Transportation

#### **Traffic Fatalities**



# HEALTH RISK CHARACTERISTICS OF GALLATIN RESIDENTS

Both behaviors and practices affect an individual's health risk. Getting immunized, for example, is a practice that aims to prevent disease. Accessing quality health care and getting routine recommended health tests are other practices that may lead to better health. Lifestyle choices, such as smoking and alcohol misuse, may lead to premature disability or death.

#### **Prevention Practices**

Prevention involves both primary and secondary practices—the first aimed at preventing disease and disability; the latter aimed at detecting the presence of disease at an early stage.

<u>Primary Prevention</u>: Delivery of immunizations is an excellent example of a primary prevention service that offers a benefit to people of all ages.

- In 2006, 98% of 2-year olds in Gallatin County, seen by a health care provider, were fully immunized (Figure 1).
- An increasing number of students received influenza vaccinations in the 2007-08 school year compared to those in the 2004-05 school year (Figure 2).

<u>Secondary Prevention</u>: Early detection of certain health conditions can be achieved today through screenings and tests.

- In 2005, a survey of Gallatin County adults indicated that two-thirds had been tested for cholesterol and high blood pressure. However, testing for other health conditions were low (Table 1).
- Most (83%) women age 35 and over had a mammogram; 55% of men age 40 and over had been tested (PSA exam) for prostate cancer (Table 1).

Figure 1: Percent of 2-year olds seen by a health care provider that are fully immunized, 2001-07

MT DPHHS Immunization Program

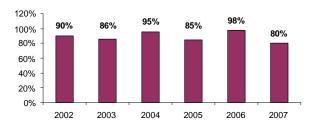


Figure 2: Percent of Montana State University students who reported having been vaccinated against types of communicable disease National College Health Assessment—Montana State University Summary, Spring 2005 and Spring 2008

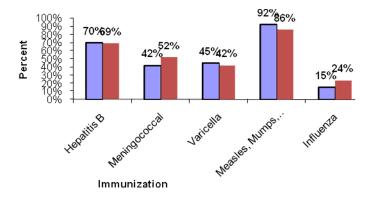


Table 1: Percent of Gallatin County adults reporting having been tested for certain health conditions, 2005

Gallatin County 2005 Community Health Needs Assessment

Health Condition	Percent
All Adults	
Cancer	24%
Depression	14%
Diabetes	35%
Glaucoma	33%
Heart Disease	28%
HIV	23%
Males >40	
PSA Exam	55%
Females >35	
Mammogram	83%

### **Health Risk Behaviors**

While a variety of risk behaviors impact health, those that cause the majority of diseases and disabilities include smoking, alcohol misuse, poor diet and inadequate physical activity.

<u>Smoking</u>: A variety of sources help us to understand smoking rates among Gallatin County residents.

- ➤ The percent of 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> grade Bozeman students who report that they regularly smoke has decreased from 2002 to 2006 (Figure 1).
- The NCHA summary shows that fewer MSU students report smoking 10 or more cigarettes per day in 2008 compared to 2005 (Figure 2).
- 40% of Gallatin County adults reported using some form of tobacco in the last thirty days (2005 Community Health Needs Assessment).

<u>Alcohol Misuse</u>: Alcohol use is also captured across different age groups.

- Despite a drop in percent in 8<sup>th</sup> and 10<sup>th</sup> grades, binge drinking among 12<sup>th</sup> graders is higher than 5 years ago (Figure 3).
- ➤ 56% of male MSU students report having 5 or more drinks in one sitting within the last two weeks compared to 36% of female students (Figure 4).
- 78% of Gallatin County adults reported some alcohol use in the last 30 days; Of that number, 51% consumed three or more drinks in one day (2005 Community Health Needs Assessment)

Figure 1: Percent of 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> grade Bozeman students reporting a regular smoking habit 2002, 2002 and 2004 Prevention Needs Assessment

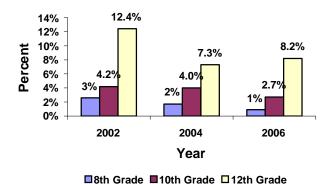


Figure 2: Percent of Montana State University students, by gender, who report smoking 10 or more days per month

National College Health Assessment—Montana State University Summary, Spring 2005 and Spring 2008

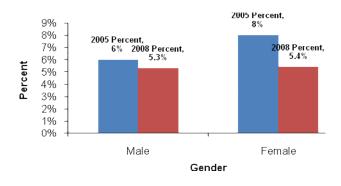
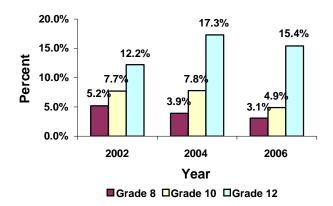


Figure 3: Percent of 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> grade Bozeman students reporting having 5 or more alcoholic drinks in a row 3 or more times in the last two weeks.

2002, 2004 and 2006 Prevention Needs Assessment

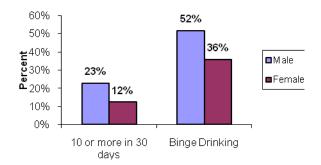


Overweight/Obesity: While no data was found regarding dietary behaviors or physical activity levels of Gallatin County residents, self-reported height and weight measurements were collected for the 2005 Community Health Needs Assessment. This data was used to calculate body mass index, a measurement often used to estimate overweight and obese prevalence.

- 33% of adults reported being overweight; 13% obese (Figure 5).
- Reports from Bozeman area residents indicate fewer rates of overweight and obesity compared with all other Gallatin County communities (2005 Community Health Needs Assessment).

Figure 4: Percent of Montana State University students, by gender who report drinking alcohol 10 or more times in the last 30 days, and who report drinking 5 or more drinks at least once in the last two weeks

National College Health Assessment—Montana State University Summary, Spring 2008



### **Access to Health Care**

- 2000 Small Area Health Insurance Estimates show 13.5% of Gallatin County residents are without any type of health insurance (Table 2).
- 83% of adults report visiting a health care provider for a routine check-up (2005 Community Health Needs Assessment).
- The number one expressed issue that prevents people from accessing health care is cost (2005 Community Health Needs Assessment).
- Residents from outlying communities, such as West Yellowstone, were more apt to point to inadequate proximity of health care services as a main barrier to seeking health care (2005 Community Health Needs Assessment).

Figure 5: Percent of Gallatin County adults who are obese and overweight

2005 Community Health Needs Assessment

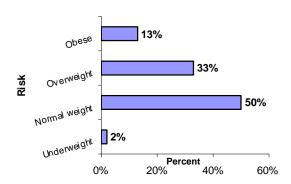


Table 2: Percent and number of insured and uninsured residents in Gallatin County U.S. Census Bureau, 2000 Small Area Health Insurance Estimates Program

Category	Percent	Number
Insured	86.5%	58,276
Uninsured	13.5%	1,395

# COMMUNICABLE DISEASE CONTROL

Effective communicable disease control is primarily based on timely surveillance measures that track cases and identify unusual occurrences of illness. Surveillance measures also allow public health officials to promptly implement measures to control the spread of disease and prevent outbreaks.

### **Control of Disease**

High vaccination rates and newly developed vaccines play a large role in declining numbers and consistently low rates of some communicable diseases. Educational programs and messages about risk behaviors and prevention measures also play a role.

- Reported cases of Chlamydia maintain a steady rise throughout the last seven years (Table 1).
- No known single-source associated diarrheal disease or gastroenteritis outbreaks have occurred in Gallatin County for many years.

### Responding to Disease Outbreaks

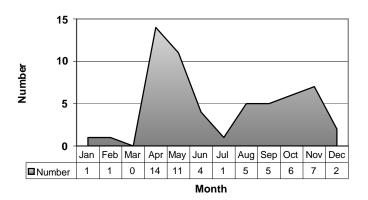
- In 2005, coinciding with a larger state outbreak, Gallatin County public health officials responded to a pertussis (whooping cough) outbreak with rapid case contact follow-up and communitywide prevention communication (Figure 1).
- Gallatin City-County health department personnel continue to rigorously respond to reports of unusual occurrences of illnesses that may indicate the development of an outbreak.

Table 1: Annual number of cases of selected reportable diseases identified in Gallatin County, 2002-2008

Gallatin City-County Health Department Communicable Disease Program

Disease	2002	2003	2004	2005	2006	2007	2008	
HIV/AIDS	8	3	4	2	4	4	5	
Chlamydia	153	161	168	165	210	250	293	
Cryptosproridiosis	1	6	4	8	9	4	6	
E Coli-pathogenic	3	3	6	6	5	2	13	
Giardiasis	17	18	7	12	14	26	17	
Pertussis	-	-	6	57	9	3	1	
Salmonellosis	6	9	7	6	10	17	13	

Figure 1: Number of reported pertussis (Whooping Cough) cases during the 2005 outbreak Gallatin City-County Health Department Communicable Disease Program



# MENTAL HEALTH AND MENTAL HEALTH SERVICES

Mental health is an increasingly recognized important factor that affects an individual's overall health. Persons with mental health disorders often deal simultaneously with substance abuse issues. Evidence suggests that those who have certain diagnosed mental health conditions fare worse when faced with a chronic illness.

### **Mental Health Status**

- In 2005, 6% of Gallatin County adults reported having poor mental health 14 or more days within the past month (Figure 1).
- Major Depressive Disorders comprise the majority of diagnoses at the Gallatin Mental Health Center (Table 1).

### **Addiction and Treatment Services**

- In 2005, 46% Gallatin County adult respondents listed substance abuse as the most important unhealthy behavior in their local communities (2005 Community Health Needs Assessment).
- Bozeman Deaconess Hospital emergency room continues to see an increase in patients diagnosed with alcohol/drug poisoning and/or mental disorders (Table 2).
- From October 2005 through September 2006, AMR responded to 71 calls in Gallatin County that involved poison or drug overdose (AMR Record System).
- The number of individuals going through treatment at Alcohol and Drug Services has decreased over the last four fiscal years (Table 3).

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Figure 1: Percent of Gallatin County and Montana adult residents reporting poor mental health 14 or more days within the past 30 days 2005 Community Health Needs Assessment; 2004 MT Behavioral Risk Factor Surveillance System (BRFSS)

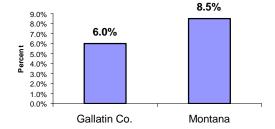


Table 1: Number of clients seen and percent by top mental health diagnoses made at Gallatin Mental Health Center in FY 2007 & FY 2008 Gallatin Mental Health Center program data

	FY	2007	FY	2008
Diagnosis	# Seen	Percent	# Seen	Percent
Major Depressive Disorder	445	36.0%	458	34.4%
Bi-polar Disorder	205	16.6%	219	16.4%
Adjustment Disorder	99	8.0%	86	6.5%
Posttraumatic Stress Disorder	61	4.9%	79	5.9%

Table 2: Number of Bozeman Deaconess Hospital ER patients with the primary diagnosis of alcohol/drug poisoning or mental disorder, 2007 & 2008 BDH patient data

Year		Number	
i <del>c</del> ai	Male	Female	Total
2007	444	347	791
2008	497	396	893

Table 3: Number and percent of individuals in treatment at Gallatin County Alcohol & Drug Services, FY Years 2004-05 and 2005-06 Alcohol & Drug Services of Gallatin County program data

FY Year	# Male	# Female	Total #	% Alcohol
2004-05	215	86	301	70%
2005-06	213	61	274	70%
2006-07	173	36	209	66%
2007-08	120	44	164	68%

# CHRONIC DISEASE AND DISABILITY

Chronic diseases now surpass communicable diseases as the leading causes of death of Gallatin County residents. Chronic diseases occur primarily as a result of: behavior risk factors, such as smoking and poor diet; social and physical environments; genetic dispositions; and, aging processes. Why is this important? Those with chronic disease and disabilities require special care and additional resources in their daily functioning.

### **Heart Disease and Stroke**

- The death rate (per 100,000 people) from heart disease has jumped from 103.8 in 2004 to 114.5 in 2007 to become the leading cause of death in Gallatin County (MT Vital Statistical Reports)
- From October 2005 through September 2006, AMR responded to 183 calls in Gallatin County that involved cardiac symptoms and/or chest pain (AMR Record System).
- Diagnoses of bronchitis and asthma at Bozeman Deaconess Hospital have increased over the last several years (Table 1).

#### Cancer

- ➤ From 1998 to 2007, the most frequently reported cancer among males was prostate cancer (32%) followed by lung cancer (11%)(Table 2).
- From 1998 to 2007, the most frequently reported cancer among females was breast cancer (40%) followed by lung cancer (9%).

Table 1: Bozeman Deaconess In-Patient visits by primary chronic disease diagnosis, 2007 & 2008 Bozeman Deaconess Hospital Medical Records, Tabulated

		Year				
		2007 2008				3
Diagnosis	# M	# F	# T	# M	# F	# T
Diabetes	22	19	41	29	20	49
Heart Disease	50	45	95	35	41	76
Asthma/ Bronchitis	28	35	63	37	43	80

Table 2: Number of diagnosed cancers by type in Gallatin County, 1998 to 2007
2007 MT Vital Statistics

Cancer Type	Male	Female	Cancer Type	Male	Female
All Sites	1,205	1,375	Bladder	86	35
Prostrate	382		Uterus		74
Breast	5	556	NHL/Hodgkin	69	47
Lung	128	128	Ovary		52
Colon	61	82	Pancreas	32	24
Rectum	46	22	Others	396	355

#### **Diabetes**

- From October 2005 through September 2006, AMR responded to 90 diabetic incident calls in Gallatin County of which over two-thirds with male patients (AMR Record System).
- Seven Bozeman and four Belgrade public school students are reported as having a diabetic condition (Figure 1).

### **Asthma**

- In 2005, 18% of adults reported having at least one of their children treated for asthma (2005 Community Health Needs Assessment).
- AMR responded to 10 asthma-related calls in Gallatin County between October 2005 and September 2006 (AMR Record System).
- Currently, 245 (4.6 %) students in the Bozeman Public School system are reported with a diagnosis of asthma (Figure 1).
- ➤ 140 (6.8%) of Belgrade Public School students are reported with a diagnosis of asthma.

#### **Disability**

- An estimated 11% of adults age 21 to 64 in Gallatin County live with disability; 36% of people age 65 and older are disabled (U.S. Census 2000).
- In 2005, 10% of adults in Gallatin County reported fair to poor health 14 days or more in the last 30 days (Figure 2) (2005 Community Health Needs Assessment).

Figure 1: Number of Bozeman and Belgrade public school students with selected chronic diseases, 2006-07

Bozeman Public Schools *Power Schools* database; Gallatin City-County Health Department School Nursing Program data

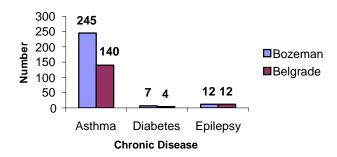
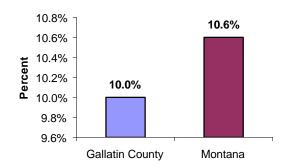


Figure 2: Percent of Gallatin County and Montana adult residents reporting poor health 14 or more days within the past 30 days 2005 Community Health Needs Assessment; 2005 MT Behavioral Risk Factor Surveillance System (BRFSS)



## MATERNAL AND CHILD HEALTH

The number of pregnancies and births is on the rise in Gallatin County. In 2006, the county recorded a total of 1,214 live births. Many factors contribute to health outcomes in both women and their infants—many of which can have lasting effects throughout a lifespan.

### **Pregnancy and Infancy**

- Most births occur to women who are between 20 and 34 years old (Table 1).
- ➤ In 2006, 5.4% of live births in Gallatin County were from teen mothers (Table 1).
- In 2006, 87% of pregnant women in Gallatin County received prenatal care within the first three months of pregnancy (2006 MT Vital Statistics).
- The percentage of babies with low birth weight has fluctuated slightly over the last decade with recent trends lying between five and six percent (Figure 1).

#### **Children and Adolescents**

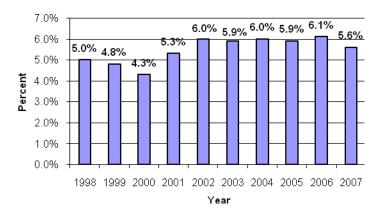
- According to the 2000 Census, 9.6% of families with related children under age 18 and 14.1% with related children under age 5 are below the poverty level.
- ➤ 6.5% of persons age 5 to 20 have disabilities (2000 Census).
- Accidents make up over half of all deaths for children and adolescents in Gallatin County (MT Vital Statistics).

Table 1: Number and percent of births, Gallatin County, 2006 by age group.

MT Vital Statistics

Mother's Age	Number	Percent
Total	1,214	100.0%
<20	65	5.4%
20-24	249	20.5%
25-29	388	32.0%
30-34	331	27.3%
35+	181	14.9%

Figure 1: Percent of births with low birth weight baby (<2500 grams) in Gallatin County, 1998-2007 MT Vital Statistics



### **INJURY**

Accidents are one of the top three causes of death for nearly all age groups. Injuries may be intentional (suicide, homicide) or unintentional (drowning, poisoning, falls, crashes, etc.). Fortunately, most injuries can be prevented with behavioral and environmental interventions.

### **Unintentional Injuries**

- From 1997 to 2006, a yearly average of 1,792 vehicle crashes occurred; 10-year annual average crash fatalities rose from 7.2 during the 1987-1996 period to 13.1 during the 1997-2006 period.
  \*\*also see Figure 2, traffic fatalities, in Leading Causes of Death section
- In 2005, 30 infant deaths were ruled accidental, 50% the result of motor vehicle accidents (MT Vital Statistics).

### **Intentional Injuries**

- To date in 2006, a total of 66 Bozeman Deaconess Hospital patients were classified with suicide ideation (BDH patient data).
- During 2007 and 2008, the Bozeman Help Center received respectively 365 and 374 suicide related calls (Table 1).
- 9-1-1 suicide attempt and threat call numbers averaged 180 annually during 2004 to October 20, 2006 (Table 2).

Figure 1: 5-year averages (number) of Gallatin County crash injuries, alcohol and non-alcohol related, 1982 to 2006

Montana Department of Transportation

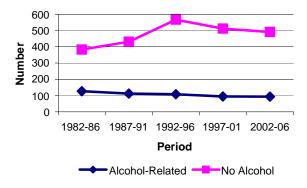


Table 1: Number of Help Center calls regarding suicide and suicide-related problems, 2007 and 2008

Bozeman Help Center Program Data

Suicide-Type Call	20007	FY 2008*
Suicide Attempt	21	11
Suicide Crisis, Threat, or Ideation	194	236
Third Party Caller	115	79
Survivor Contact	13	13
Information/Other	22	35
Total	365	374

<sup>\*2008</sup> data from January until late October

Table 2: Number of suicide attempt and threat calls to 911 in Gallatin County, 2004 to 2008.

Gallatin County 911 Call Data

Year	Number
2004	177
2005	185
2006	177
2007	238
2008	228

# **ENVIRONMENTAL QUALITY AND HEALTH**

In relation to public health, the environment is traditionally discussed in terms of dynamic interaction between elements of the natural environment and associated impacts on the health of people living in that environment. More recently, increasing interest has been directed to the impact that environmental redesign (i.e. development and built environment) has on public health. In truth, both concepts of environment suggest a dynamic system by which communities maintain the health of its residents by maintaining the quality of the environment both within and surrounding the community.

### **Air and Water Quality**

Air quality and water quality rank among the top environmental concerns of Gallatin County residents. Air and water are essential to the public's health; as development and traffic increase in the county, addressing air and water quality issues is essential to assuring the health of Gallatin County citizens.

#### **Built Environment and Public Health**

Another related expressed concern has to do with area development issues, such as urban sprawl, mixed with rapid population growth. Individual communities in Gallatin County will address growth issues differently (Figures 1 and 2). The resulting built environment has a great impact on public health. For example, policies and plans that encourage increased use of public transportation and safe alternative means of transportation may reduce vehicle emissions and increase the amount of regular physical activity opportunities for citizens. Such effects may impact levels of chronic disease, and potentially reduce traffic accidents.

Figure 1: Gallatin County population by place of residence, 2000 and 2005
MT Census & Economic Information Center; 2000 U.S. Census

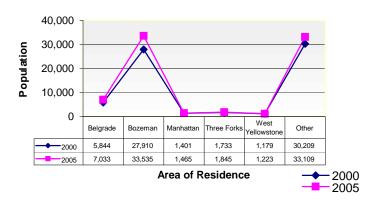
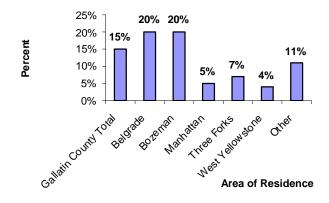


Figure 2: Percent growth by place of residence, 2000-2005

Tabulated data from MT CEIC and 2000 U.S. Census



# LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT

In March of 2005, Gallatin County public health system partners came together to discuss the performance of the entire local public health system. The outcome of this process, facilitated by state health officials and health department staff, was measured with the Local Public Health Performance Measurement instrument

The Local Public Health System (LPHS) Assessment uses "Gold Standards" (ideal public health status) to measure how local systems perform the 10 essential public health services (Table 1). The following points summarize the assessment results (Figure 1):

- The Gallatin County Local Public Health System does "Well" in:
  - Diagnosing and investigating health problems
  - Researching for innovations
  - Enforcing laws and regulations
  - Assuring a competent workforce
  - Monitoring public health risks
  - Developing policies and plans
- Essential Service performances "For Consideration" include:
  - Evaluating services
  - Linking people to needed health services
  - Mobilizing community partnerships
  - Informing and educating

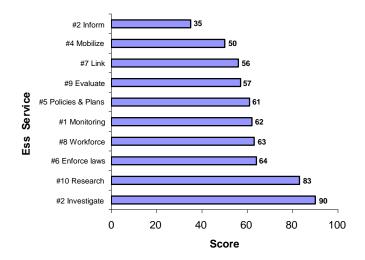
These results help to identify areas for improvement and capacity development as well as areas that the local public health system has met with considerable success.

Table 1: 10 essential public health services used in measurement of the local public health system

#### 10 Essential Public Health Services

- 1. Monitor public health risks
- Diagnose and investigate public health problems and hazards
- Inform, educate and empower people about health issues
- 4. Mobilize community partnerships to identify and solve health problems
- 5. Develop policies and plans that support individual and environmental health efforts
- 6. Enforce laws and regulations that protect public health and ensure safety
- 7. Link people to needed personal health services and with community partners, assure the provision of health care when unavailable
- 8. Assure a competent public health workforce
- 9. Evaluate effectiveness, accessibility and quality of public health services
- 10. Participate in research for new insights and innovative solutions to health problems

Figure 1: Score results from the Gallatin County local public health system assessment, 2005



### **Data Sources**

Section	<u>Data Sources</u>
People of Gallatin County	<ul> <li>U.S. Census Bureau</li> <li>2000 U.S. Census</li> <li>2005 American Community Survey</li> <li>Montana Census and Economic</li> </ul>
	Information Center
Causes of Death	<ul> <li>Murray, C., Kulkarni, S., Michaud, C., Tomijima, N., Bulzacchelli, M., Landiorio, T, and Ezzati, M. (2006). Eight Americas: Investigating mortality disparities across races, counties, and race-counties in the United States. <i>PloS Medicine</i>, 3 (9): e260. DOI: 10.1371/journal.pmed.0030260</li> <li>Montana Vital Statistics Office</li> <li>Montana Department of Transportation</li> </ul>
Health Risk Characteristics of Gallatin Residents	<ul> <li>Montana DPHHS Immunization         Program</li> <li>National College Health Assessment—         Montana State University Summary,         Spring 2005 (courtesy of MSU Student         Promotions Office)</li> <li>Gallatin County 2005 Community Health         Needs Assessment</li> <li>2000, 2002 and 2004 Prevention Needs         Assessment—MT Prevention Resource         Center</li> <li>U.S. Census Bureau, Small Area Health         Insurance Estimates Program (courtesy         of MT CEIC)</li> </ul>
Communicable Disease Control	<ul> <li>Gallatin City-County Health Department Communicable Disease Program</li> <li>MT DPHHS Communicable Disease</li> </ul>
Mental Health and Mental Health Services	<ul> <li>Gallatin Mental Health Center</li> <li>American Medical Response Record System</li> <li>2004 Montana Behavioral Risk Factor Surveillance System</li> <li>Bozeman Deaconess Hospital</li> </ul>

- Gallatin County 2005 Community Health Needs Assessment
- Alcohol & Drug Services of Gallatin County

Chronic Disease and Disability

- Montana Vital Statistical Reports
- Bozeman Deaconess Hospital
- American Medical Response Record System
- ➤ U.S. Census 2000
- Gallatin County 2005 Community Health Needs Assessment
- Bozeman Public Schools
- Gallatin City-County Health Department School Nursing Program

Maternal and Child Health

Montana Vital Statistics Office

Injury

- Montana Department of Transportation
- Bozeman Help Center
- ➤ Gallatin County 911 Center
- Montana Vital Statistics Office
- Bozeman Deaconess Hospital

**Environmental Quality and Health** 

- Montana Census & Economic Information Center
- ➤ U.S. Census 2000

Local Public Health System Assessment

Centers for Disease Control— National Public Health Performance Standards Program (NPHPSP), results from the Local Public Health System Performance Assessment Instrument





"Committed to the protection and promotion of public health."

### Gallatin City-County Health Department

Find us at: www.gallatin.mt.gov/health

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